

426-19

PRESERVING,
ation.99 PRESERVING,
5 Dislocation.

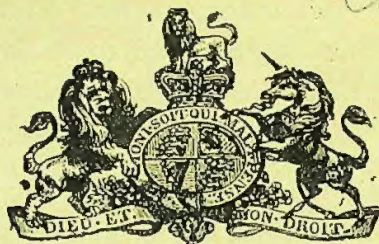
1875

70

Cooled under pressure

(170) 393 781

RECORDED



A.D. 1875, 2nd SEPTEMBER. N° 3081.

Preserving Bread.

Heat & Compression

LETTERS PATENT to Dominique Tamet, of No. 10, St. Mary Axe, in the City of London, Merchant, for the Invention of "AN IMPROVED PROCESS FOR PRESERVING BREAD FOR THE USE OF TRAVELLERS, THE ARMY AND NAVY, AND OTHERS."—A communication from abroad by A. Mouries, Officer in the French Army, of Lyons, in the Republic of France.

Sealed the 29th February 1876, and dated the 2nd September 1875.

PROVISIONAL SPECIFICATION left by the said Dominique Tamet at the Office of the Commissioners of Patents, with his Petition, on the 2nd September 1875.

I, DOMINIQUE TAMET, of No. 10, St. Mary Axe, in the City of London, Merchant, do hereby declare the nature of the said Invention for "AN IMPROVED PROCESS FOR PRESERVING BREAD FOR THE USE OF TRAVELLERS, THE ARMY AND NAVY, AND OTHERS," to be as follows, that is to say:—

Uptil now biscuit has been the only food for replacing bread under circumstances where it is very difficult or impossible to obtain bread.

Tamet's Improved Process for Preserving Bread.

As is well known biscuit is used by travellers, the army and navy, as an aliment of necessity and nothing more. Biscuit is heavier than bread, less aërated, becomes impregnated more slowly with saliva, and requires efforts for its trituration which toothless gums and persons whose teeth are effected are incapable of performing. 5

Investigations have been made with the object to be able at all times and in all places to feed the troops, the navy, and travellers with bread, either in a fresh or new state or preserved. Until now this problem has only been imperfectly solved.

Several processes of preparation for preserving bread have been tried, 10 but some of them take from this food certain parts of its hygienic properties, and others are complicated in their execution, and costly.

After laborious researches and many years of experimentation I have discovered a simple and economical means of preserving bread without occasioning any loss of its taste or of its nutritive qualities, and 15 facilitating its transport by reducing its volume.

To carry out this Invention I take bread made in the ordinary manner without regard to the flour employed. This bread is placed on shelves in a chamber in which currents of hot air are made to circulate. When it has been freed of all its moisture, that is to say, when it is dried to 20 such a degree as to allow of its being pulverised, it is submitted in a stove or oven to the action of water steam, at least at about 100 degrees centigrade of heat during about ten minutes; it is there submitted to a second baking which softens it; it must then be rapidly compressed by means of any suitable press by placing it on wooden or metal shelves 25 between laths which give the cakes the form and thickness required. Pressure is applied until the cakes are cool; the cakes are then withdrawn and will retain the form given to them; they are afterwards placed in a drying chamber in such a way as to be exposed to the action of the air, and until perfectly dry and ready for use or packing for 30 exportation.

A vessel about one cubic yard in capacity will contain about ten hundredweight of bread so prepared, the preservation of which is ensured during several years without other precautions than that of keeping the cases from free moisture. The bread thus prepared retains all its 35

Tamet's Improved Process for Preserving Bread.

primitive and nutritive qualities and properties ; it can be used in three different ways.

First. It may be eaten in a dry state like biscuits.

Secondly. For making soup it is cut up in small pieces about the size
5 of a nut, which are placed in the soup tureen with ten times their weight of hot soup. At the expiration of a few minutes it will absorb much of the liquid and retake its primitive volume and aspect.

Thirdly. It can be restored to its fresh or new state in the following manner :—It is immersed during about one minute in cold water, then
10 exposed to a heat of about 100 degrees centigrade in an oven or vessel well closed ; in a short time it will swell and the crumb be restored to its open state ; it can then be eaten like new bread and the difference if any is scarcely perceptible.

SPECIFICATION in pursuance of the conditions of the Letters Patent,
15 filed by the said Dominique Tamet in the Great Seal Patent Office on the 1st March 1876.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, DOMINIQUE TAMET, of No. 10, St. Mary Axe, in the City of London, Merchant, send greeting.

20 **WHEREAS** Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Second day of September, in the year of our Lord One thousand eight hundred and seventy-five, in the thirty-ninth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Dominique Tamet, Her
25 special licence that I, the said Dominique Tamet, my executors, administrators, and assigns, or such others as I, the said Dominique Tamet, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might
30 make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Inven-

Tamet's Improved Process for Preserving Bread.

tion for "AN IMPROVED PROCESS FOR PRESERVING BREAD FOR THE USE OF TRAVELLERS, THE ARMY AND NAVY, AND OTHERS," a communication from abroad by A. Mouries, Officer in the French Army, of Lyons, in the Republic of France, upon the condition (amongst others) that I, the said Dominique Tamet, my executors or administrators, by an instrument 5 in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters 10 Patent.

NOW KNOW YE, that I, the said Dominique Tamet, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say :— 15

Uptil now biscuit has been the only food for replacing bread under circumstances where it is very difficult or impossible to obtain bread.

As is well known biscuit is used by travellers, the army and navy, as an aliment of necessity and nothing more. Biscuit is heavier than bread, less aerated, and becomes impregnated more slowly with saliva, 20 and requires efforts for its trituration which toothless gums and persons whose teeth are affected are incapable of performing.

Investigations have been made with the object of being able at all times and in all places to feed troops, navies, and travellers with bread, either in a fresh or new state or preserved. Until now this problem has 25 only been imperfectly solved.

Several processes of preparation for preserving bread have been tried, but some of them take from this food certain parts of its hygienic properties, and others are complicated in their execution, and costly.

After laborious reseaches and many years of experimentation a simple 30 and economical means of preserving bread has been discovered by my foreign correspondent without occasioning any loss of its taste or of its nutritive qualities, and facilitating its transport by reducing its volume.

Tamet's Improved Process for Preserving Bread.

To carry out the Invention communicated to me I take bread made in the ordinary manner without regard to the flour employed. This bread is placed on shelves in a chamber in which currents of hot air are made to circulate. When it has been freed of all its moisture, that is to 5 say, when it is dried to such a degree as to allow of its being pulverised, it is submitted in a stove or oven to the action of water steam at a temperature of at least 100 degrees centigrade during about ten minutes; it is there submitted to a second baking which softens it; it must then be rapidly compressed by means of any suitable press by placing it on 10 wooden or metal shelves, between laths which give the cakes the form and thickness required. Pressure is applied until the cakes are cool; the cakes are then withdrawn and will retain the form given to them; they are afterward placed in a drying chamber in such a way as to be exposed to the action of the air, and until perfectly dry and ready for 15 use or packing for exportation.

A vessel about one cubic yard in capacity will contain about ten hundredweight of bread so prepared, the preservation of which is ensured for a period of several years without other precautions than that of keeping the cases free from moisture. The bread thus prepared retains 20 nearly all its primitive and nutritive qualities and properties; it can be used in three different ways.

First. It may be eaten in a dry state like biscuits.

Secondly. For making soup it is cut up in small pieces about the size of a nut, which are placed in the soup tureen with about ten times their 25 weight of hot soup. At the expiration of a few minutes the pieces of bread will absorb much of the liquid, and will retake their primitive volume and aspect.

Thirdly. It can be restored to its fresh or new state in the following manner :—It is immersed during about one minute in cold water then 30 exposed to a heat of about 100 degrees centigrade in an oven or vessel well closed; in a short time it will swell and the crumb be restored to its open state; it can then be eaten like new bread, and the difference if any is scarcely perceptible.

Having thus described the Invention communicated to me, and the 35 best means I am acquainted with for carrying the same into effect, what

Tamet's Improved Process for Preserving Bread.

I claim is, the improved process for preserving bread as herein-before described.

In witness whereof, I, the said Dominique Tamet, have hereunto set my hand and seal, this Second day of March, in the year of our Lord One thousand eight hundred and seventy-six. 5

D^{QUE}. TAMET. (L.S.)

Witness,

G. F. REDFERN,

4, South Street,
Finsbury.

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LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1876.